

NEWSLETTER
Vol. 7 No. 1

JACG TACE

Mar. 1987

Single Copy
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THE JERSEY ATARI COMPUTER GROUP

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IN THIS ISSUE

EDITORIAL

Please notice the improvement in the quality of this month's issue of the Newsletter. The professional duplication of this month's issue was due to the generosity of JACG's long-time supporter (and long-time advertiser in our Newsletter) GEMINI ENTERPRISES of Cedar Knolls. GEMINI underwrote the cost of duplication. A very large "THANK YOU" for their timely assistance in our "hours of need".

As to the club treasury, updated reports will be found in this issue, which indicate that, although the club lost considerable reserve over the past year, our financial position is improving, and it would appear only a matter of a few months (MAXIMUM) before printed issues of the Newsletter again become a reality! I think that the new club policy of requiring a Treasurer's Report in every issue of the Newsletter will go a long way in preventing the "near-disaster" of last month from ever occurring again.

I recently received a letter from Len Labriola relative to the ST library and a perceived lack of emphasis on it by the Executive Committee. Well, I think that Charlie Miller's article in this issue goes a long way in dispelling concerns in that area. ST ownership within the JACG is growing, and as it does, so will meeting content, library content, and Newsletter content! Of course, all such content (either 8 or 16 bit) is predicated on the cooperation and involvement of the membership; without contribution there can be NO content!



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Meeting Schedule
April 11, 1987

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A FEW WORDS ABOUT THE ST LIBRARY

Charlie Miller-JACG

Last month was the first time that we saw a "Disk of the Month" sale offered from the ST library. Well, if you liked it, you will be glad to hear that it will be a monthly feature of the ST library just as it is with the 8-bit portion of the library. So each month you can look forward to being able to purchase a disk for \$3.00 rather than the normal \$5.00. To assist in this project, I plan submit a few lines to the newsletter each month and inform you as to what the "Disk of the Month" will be for the current and upcoming months. I may also offer some information here that I think may apply to the ST library. I may just offer some opinions of my own if not requested to be quit!

This month the "Disk of the Month" special will be disk #25. This disk features ST Writer version 1.70 which was the latest version at the time I downloaded it and entered it into the library. You will also find the utility ARC.TTP and it's DOC file. I thought this would be handy to include since it is the "Official" compression utility of Comp-u-serve now. If you have any questions as to what ST Writer 1.70 offers over the original take a peek in the "Winter 1986" issue of "STart" magazine at an article about version 1.50 which should give you an idea as to where 1.70 is heading. Bet you are saying "Hey, that was the Disk of the Month last month" and you would be right but I'm not giving out cigars. The reason it is the "Disk of the Month" again is that I wasn't aware that there would be a disk of the month until I showed up last month and was informed of the practice. So I decided that for those who got caught off guard you get another chance this month.

April's "Disk of the Month" will be the CP/M Emulator that was released to the public domain by Atari. These files are all compressed but again you will find the ARC.TPP program and it's Docs for your convenience. This emulator is a bit tricky but I managed to get it to work and there is included some text to help you with it. If the emulator sells well and if interest is shown for it, we have access to a large CP/M library and would consider putting some of these programs on 3 1/2 inch disks and including them in the library.

I got advance notice from Dave Noyes the newsletter editor of a "letter to the editor" concerning the ST library and I guess the ST SIG in general. First I would have to say the obvious that the ST SIG is only a portion of the membership and that if ST owners expect the STs to

get their fair share of exposure then a fair share of ST owners will have to participate. Take a look and see how many ST owners are on the board or how many were willing ►

to serve as 16-bit V.P. when asked last month. If you're not part of the solution you must be part of the problem. But although this explanation is heard in every club for just about every ailment, it does have some merit so take a good look and consider if there is anything or way that you can contribute.

In the future I hope to be introducing more disks to the library that I hope will be of interest to you. One thing we seem to be lacking in the library is games. I believe I have some that will enable me to introduce a disk of games in the near future. I also hope to offer a disk of .ACC files you may select for installation upon bootup. Someone asked me last month about a VT100 emulator, I now have one which will be available in the library. I always liked to see new pictures in Neo or Degas format and believe I have some fresh entries to introduce to you. I hope I can keep up and find new material to hold your interest, but in the meantime take a look and see what you can contribute also so we can all enjoy our STs and JACG all the more.

TREASURER'S REPORT REVISED

G. Vandenberg -Treasurer - JACG

STARTING BALANCE 1/1/86 \$5711.00

INCOME

Dues	6064.00
Newsletter Ads	1865.00
Newsletter Sales	219.00
Fund Raising Sales	1358.00
8-Bit Disk Library	2186.00
ST Library	170.00

TOTAL INCOME 11862.00

EXPENSES

Newsletter Print.	8962.76
Newsletter Mailing	2326.33
8-Bit Library	306.00
ST Library	508.48
Equipment Purchase	311.70
Equipment Mtce.	350.00
BBS	64.09
Telephone	1288.96
Stationery	1477.43
Postage	746.20
Travel	30.00
Miscellaneous	341.66

TOTAL EXPENSE 16713.61

ENDING BALANCE 12/31/86 \$859.39

D.B. Noyes - JACG

I recently purchased RUBBER STAMP by X-LENT SOFTWARE, and have found it a dandy tool for making address and return-address labels. Standard PRINT SHOP graphics, graphics made especially for RUBBER STAMP, or graphics which can be converted to same, may be used, along with text of varying fonts, on the labels. There are editors for both text and graphics to enable one to modify, or if artistic, to generate one's own text and graphics. I would consider myself a rank amateur in my skills with it at present - but this has neither dampened my enthusiasm, nor prevented me from generating some very decent labels. Perhaps when I become more acquainted with RUBBER STAMP I will "demo" it for the club.

As far as ease to use, I have found it better to use the manual infrequently, as it tends to be somewhat confusing to me. Experimenting seemed to generate more success than trying to follow the manual.

In typical Noyes fashion - less than three weeks after I purchased RUBBER STAMP, a public-domain labelling program utilizing PRINT SHOP graphics and text fonts appeared in the April issue of ANTIC. Although it doesn't have all the "bells and whistles" that RUBBER STAMP does - it has the RIGHT price!

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WHY IS THIS BBS SO MUCH BETTER?

The power of this system is mostly attributed to the Modem Operating Environment. It makes possible the ability to run BASIC programs WITH LITTLE OR NO MODIFICATION on your bulletin board. It also allows you as the Systems Operator (SysOp) of the Carina BBS to drop into BASIC ON-LINE at any time and make modifications to your program from across the country if need be. No other Atari bulletin board has this feature.

YOU MEAN I CAN CHANGE THE PROGRAMS?

Yes, the Modem Operating Environment eliminates the need to perform modem operations. The bulletin board is written in understandable BASIC and is, in fact, designed with modification in mind. The Carina BBS is also module based. This means you are no longer restricted by the memory of your computer, but rather by the amount of on-line storage on your disk drives and your ramdisk. The Carina BBS itself is not 1 but 7 separate programs. It is a massive system that can be expanded beyond your imagination.

WHAT PROGRAMS COME WITH IT?

The modules included are: The waitcall module which performs user logon/logoff functions, the bulletin board itself which controls all message bases and databases, the file-transfer module with X-Modem upload/download transfer protocol, the message editor (with extensive word processor-like functions), the SysOp commands with the most powerful functions available for any bulletin board on-line, the sub-commands module which contains miscellaneous extra functions, and an on-line trivia game. The Carina BBS has a total of 44 commands including 17 SysOp functions. It is easy to add any other modules of your own, plus there is plenty of room to add any other functions in different modules.

DOES THE CARINA BBS USE ONE-LETTER COMMANDS?

No, the Carina BBS uses word commands as opposed to single letters. For example, typing "Read New" will show you all new messages since your last call. If you prefer just typing one letter, that can be done also. Each command has a macro key that will type the words for you. Typing Ctrl-R Ctrl-N will duplicate the above input. You can also stack more than one command on a line. It is more powerful and a lot easier.

WHAT EQUIPMENT DO I NEED?

To run the Carina BBS you will need an Atari 8-bit computer, at least 1 drive, and a modem. A printer can also be used. The Carina BBS will work with most DOS's and many different interfaces and modems. The Carina BBS is known to work with the Atari 850 interface, the ATR 8000, the Hayes Smartmodem, the MPP 1000C/E modems, and the Q-Modem. It also supports 1200 and 2400 baud.

WHAT ELSE CAN IT DO?

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There really isn't enough room to tell you all that the Carina BBS can do. The best way to find out what it can do is to call 305-793-2975 for an on-line demonstration or write for more information.

HOW CAN I GET ONE?

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Carina Software Systems
12390 57th Road North
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PRESIDENTIAL PONDERINGS

Joe Kennedy - JACG

Well, welcome to the sooner than expected last edition of Presidential Ponderings. Those of you who read this column (there are such people I hope) know that I'll be moving to Germany for three years for a new assignment with the company that I work for. Since the treasury can't stand the drain of monthly round-trip tickets from Duesseldorf, I am tendering my resignation as President effective at the March meeting however I will be continuing as a member of the JACG. With that in mind I hope you'll allow me a little reminiscing. I joined the JACG a little over four years ago. Immediately the benefits of membership were evident in the form of the information from the meetings and the disk library - everything in those days was for the 8-bit machines. Yes I got a lot out of the JACG just by attending the meetings. But I felt the need to do something more than sit and watch at the meetings. Initially it was writing for the newsletter. But what was done is not the point. The point is that you get so much more out of the JACG when you put something into it that I can't conceive of everybody not wanting to do something for the group. Further (being naturally selfish) I would hope that everyone would get involved in one way or another so that the JACG prospers and grows during my stay in Germany for I want the JACG to be here when I return. Right now is a good time to get involved, particularly for the new 16-bit members or for the 8-bit members who still know the advantages of the best home computers ever made. So get involved - GIVE A BIT!!!

With the new offices of Vice-President 8-bit and 16-bit, we should be going along way towards making our group stronger with a bright future. After all both are excellent machines and both have long useful futures and should exist together with enthusiasts for both models. Another harbinger of a good future is the revised Treasurer's report that you'll find in this issue. As you can see we still spent more than we took in last year but the figures are just a little better and the cash on hand total is much better. But none the less fiscal responsibility in the form of the measures discussed in last month's newsletter is essential for the continued growth of the JACG.

Growth is only possible with the efforts of good people. I must say that we have some very good people working to make the JACG better. Harder workers than what we have would be hard to find. Bob Mulhearn keeps the membership rolls, handles the distribution of the newsletter, and manages all the exchange newsletters from the other groups. Dave Noyes puts together the newsletter during visits at home between jaunts around the world. ▶

Sam Cory spends more time on the disk library than most people have waking hours. Doug Van Hook, Brett Calligari and Charles Miller all work on the disk library. Gary Gorski, who just wanted to find out a little about his computer, is our advertising manager, sales manager at the meetings and has the JACG BBS in his home. Tom Pazel, who will be the President after the March meeting, has written many programs for the JACG including the title screen for the library disks. Shree Vandenberg has toiled as our Treasurer. Tom Pluck has worked as the Program Chairman and contributed heavily to the newsletter. Don Forbes, Ken Pietrucha and many others contribute regularly to the newsletter. To all of these great people, and those that I should have mentioned but overlooked, thank you for helping to make the JACG the fantastic group that it is. This is a long list but it is a finite list. So don't let these people do it all. Get involved and help out.

A little current business - the Trenton Computer Festival is scheduled for April 11-12. If anyone has a desire to present a paper, please contact Manuel Ayres at 201-968-6112. The Atari Fair is scheduled for the weekend of March 14-15. If you're reading this at the meeting, that's good. You can go to the Hilton Hotel in Allentown, PA this afternoon or tomorrow for this fair.

Just a last thank you for the opportunity to have served as your President even if it has been for an abbreviated term.

TREASURER'S REPORT FEBRUARY 1987

S. Vandenberg - Treasurer - JACG

STARTING BALANCE 2/1/87	\$1231.37
INCOME	830.00
EXPENSES	26.45
ENDING BALANCE 2/28/87	\$2034.92

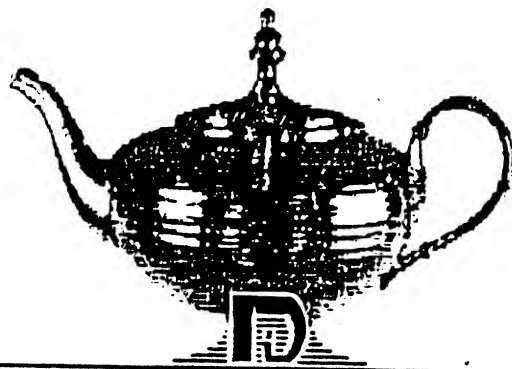
NB. January's balances shown in the February 1987 JACG Newsletter have been revised and should be:

INCOME	\$1660.57
EXPENSE	\$1288.59



ANNOUNCING THE END OF READING AS WE KNOW IT

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Chantal interviews Kristofferson,
you interview the President
& much much more...



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Packing Strings in FORTH

By Robert Meyers

Handling strings in FORTH can be maddening. I speak from experience. I have made repeated attempts at clearing PAD (the temporary buffer), writing to it, sending the contents to the disk and keeping track of the string on the disk. Even when it works, I can't remember how to do it the next time. The hallmark of FORTH is simplicity, but it can be complicated at times. There is a way, however, if go back to the beginning. In my case, this means rereading the standard books before losing the thread or dozing off, e.g. Brodie, Winfield and, a new one on FORTH-83, Mastering FORTH, by Anderson and Tracy.

FORTH stores characters in three basic ways: (1) at PAD (the temporary buffer), (2) as ASCII numbers in variable arrays or (3) in sequences of bytes on disk. The least permanent of these is PAD which is written over constantly. Variables are more permanent since they are reserved spaces in memory and are not written over. The most permanent, however, is the disk itself. This is where you would want to store database information. When given an address of one of these three locations, COUNT returns the number stored at the original address and, at the second position on the stack, the next address. Thus PAD COUNT will return the number at PAD and the address of the second byte in the buffer. When given a number n and an address adr, TYPE prints n characters starting at adr. TYPE will print to screen or the printer, if it is open. COUNT TYPE then work in tandem to output text. COUNT gets the length and the starting address of the text and TYPE outputs it. The main problem in putting this together is insuring that the length of the string is in the first byte. That means that, if we are using PAD to store the text, we have to find a way of storing the length of the text in the first byte with the text itself starting in the second.

A string with the length in the first position is called "packed" string." The trick is to get the length of the string when you input it and pack the string, i.e. move everything over so the length can go first. FORTH-83 contains SPAN which stores the length of a string as it is input, but Fig-FORTH (e.g. ValFORTH, APX FORTH and the public-domain FORTH available in the library) has no such word.

A word that solves the problem is CPACK. Given a destination address, CPACK will do three things: 1. it waits for up to 80 characters to be input up to a return, 2. it stores the length in the first byte, and 3. it moves the length byte and string to the address. The definition, simplified from Winfield, p. 91, is:

```
: CPACK \ dest adr--
." >" CR QUERY CR 1 WORD HERE
DUP C@ 1+ ROT SWAP CMOVE ;
```

CPACK eliminates the need to clear the string or buffer

before you use it. Since the length of the string is stored in the first byte, you can print the string you input no matter what else is in the string. CPACK also saves the trouble of eliminating trailing blanks. You also don't need a special definition type for string arrays; the normal array type becomes a string array because the length is in the first byte.

To illustrate, try PAD CPACK. The '>' will appear. Type in what you want; PAD COUNT TYPE will get it back. (For convenience, define GET as COUNT TYPE.) Or we can set up an array. Enter:

```
0 VARIABLE TEST 12 ALLOT
```

This creates an array TEST, initialized to 0 and reserves the following 12 bytes. That means we have a 13-byte array with one extra to store the length. (VARIABLE reserves a 16-bit number while ALLOT reserves 8-bit locations--thus a total of 14 bytes.) If we now try TEST CPACK, we can input text to TEST and retrieve it when we wish with TEST GET.

The useful application of CPACK is to store strings on disk. The following words allow you to store a list of grocery items on disk, then read them to the printer. If you want the item put on your shopping list, type 'Y' when the item appears. The idea derives for a well-known BASIC program (see ABCs OF ATARI COMPUTERS, p. 70), but as usual the FORTH equivalent is more elegant and shorter. The program is written in ValFORTH.

```
0 VARIABLE ITEM#
161 CONSTANT FIRST-SCREEN

: WHERE?
  ITEM# @ 16 * 128 /MOD FIRST-SCREEN
  4 * + BLOCK + UPDATE ;
: FILE WHERE? CPACK ;
: FILE+ FILE 1 ITEM# +! ;
: SEEITEMS
  0 ITEM# !
  BEGIN WHERE? COUNT DUP
  0 > WHILE
    OVER OVER TYPE CR
    ." Y to type " KEY 89 =
    IF ON P: 5 SPACES TYPE CR
    OFF P: ELSE DROP DROP ENDIF
    CR 1 ITEM# +! CR ;
```

ITEM# keeps track of the current item; FIRST-SCREEN is the screen on the disk where the items are stored; I use 161 since it is usually at the end of the disk out of the way. WHERE? calculates the address of the item wanted on the disk. Note that the maximum length for each item is 15 bytes: 15 plus 1 for the length to a total of 16. This is convenient since 16 divides equally into 128, the size of a block in ValFORTH. It is too difficult and not worth it to save disk data as one continuous string; when a string you want to save falls at the crease between blocks, you have to save part on one, get the next block, then store ►

Write a Speech For the Boss

by Donald Forbes - JACB

the rest. The last word, SEEITEMS, reads through the items on the disk until it finds one with a length of 0, i.e. the last one.

Of course, no items are stored on screen 161 when you load the screens. When you first run it, the pointer in @ITEM is 0. FILE+ will allow you to input items, then make the next item current. Type FILE+. When the caret appears, enter, say, CARROTS, then return. Type FILE+ again and enter the next item, say PEAS. Continue until you have input the items you usually shop for. Later, if you want to add items, run SEEITEMS to the last item, then use FILE+. SEEITEMS will read the file and ask whether you want a printout or not for each item as it appears on the screen. In this way, you make your own shopping list of items you need.

The program is not fancy; there is no title or special formatting to give a pleasing display. Like FORTH itself, it is short and functional -- the beauty is in the program.

As you can see, these techniques can be extended. You can make databases and file card programs in which you store material directly to disk so you can retrieve it later. It even looks pretty simple once you see how to do it.

ATARIWRITER AND WORDPROCESSING MACROS

Barry R. Weissman - JACB

One of the niceties that I miss when doing wordprocessing with my ATARI is the convenience of MACROS. That is the ability to assign other words, letters or symbols to a key or series of key strokes. Well never fear, you too can generate macros for your wordprocessor. I will talk about ATARIWRITER +, but the idea is applicable to any other wordprocessing program.

ATARIWRITER + has the ability to merge other files into the current file. To do this, just press OPTION L, then the file name and that file is added to your current file.

To create a macro, just create a separate file for any words, letters or symbols that you need. Store them with a simple file name and recall them with OPTION L. To give you an example: I store the codes needed for special printing characters such as bold, italics or underlining. Also, if I am using a word or phrase many times in a letter, I'll make a macro file so I won't make any mistakes typing it each time.

BOSS: "I need to write a speech for our marketing convention in Las Vegas next month. My brain isn't functioning too well this morning. Give me some notes."

The boss knows how to give orders (that is why he is the boss) but he is not a writer. So that is why you have a job. What to do?

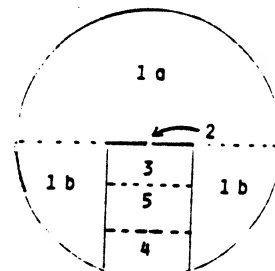
So you jump on your time machine and set the time controls for the year 1943, and the location controls for library of the Command and General Staff School at Fort Leavenworth, Kansas. Off the shelf you pick the staff officer's manual Army Field Manual FM 101-3 and turn to the section on the five-paragraph field order. Perhaps this may give you the structure for the speech your boss wants to make.

What is the five-paragraph field order? The easiest way to explain it is with a diagram.

So once more you hop back into your time machine and set the time controls for the summer of 1916, and the location controls for France and the battlefields of Verdun (the scene of the greatest mass slaughter in human history).

From the battlefield you pick up one of the standard British Lee-Enfield rifles and examine the sighting mechanism. The end of the barrel has a rectangular projection that you can see when you peer through the circular opening (adjustable for yardage and windage) in the sight. You have to center the rectangle in the circle and then pull the trigger.

Here is a picture:



You can use the sight to visualize the five-paragraph field order.

The life of the army staff officer revolves around planning and preparation. When the general issues an order, it is in the form of a carefully prepared document in a rigidly defined format. ►

by

Kenneth J. Pietrucha

Paragraph One is dedicated to Intelligence. Paragraph One A (1.a) covers intelligence of the enemy, and we can visualize it as the top half of the circle. Paragraph One B (1.b) covers information of supporting units, represented by the two circle sectors at lower left and lower right.

Paragraph Two defines the mission of the command as a whole: "This batallion will attack on the whole front to capture Pork Chop hill." In the diagram we can represent this paragraph as the rectangle in center of the lower half of the circle.

Paragraph Three is: mission of front line troops, and the top third of our rectangle.

Paragraph Four is: mission of supply troops, and the bottom third of our rectangle.

Paragraph Five is: location of the command post (where to find the general), and the middle third of our rectangle in the diagram.

So now we have the framework (with its own mnemonic) for a speech for our boss for any occasion at any moment in time. Here is a sample speech that covers all the bases.

1. a. We are being clobbered by the competition, who are now offering computers with larger memories and faster access speeds at lower prices. The government has lowered trade barriers so that foreign producers are now able to undercut our prices.

1. b. Congress is aware of our plight and is about to give us some needed tax advantages.

2. Our marketing plan for this year is to bring out innovative software that will raise our market share from 8 per cent to 10 per cent.

3. Our sales staff is gearing up to handle a 20 per cent expansion of our customer list.

4. Our supply department will be able to handle a 20 percent increase in sales.

5. I will be touring our dealer sales offices and can be reached at any time by calling our home office number.

Your boss is back in the office. So how did the speech go over at Las Vegas?

BOSS: "That was a great speech that I wrote. It was the hit of the convention. Now I have to write another one like it for the summer convention in Honolulu."

The day before our next meeting will be the second Friday the 13th. this year. We all know that this is suppose to be a bad luck day, but no one can explain why. Business loses millions of dollars when Friday falls on the 13th. of the month. Employees take the day off or just do as little as possible so as to avoid injury. Every year must have one of these days, but can never have more than three.

Fear of the number 13, or Triskaidekaphobia, is the most widely held superstition in the world.

No one in his right mind would ever allow himself to be operated on in operating room # 13, so most hospitals don't have a room # 13.

Most larger hotels and office buildings don't have a 13th. floor. If you look at the elevator buttons, you will see they go from 12 directly to 14.

If you travel to the Geneva International Airport, you won't have to worry about arriving at or departing from gate # 13, there is none. The twenty-four hour clock doesn't have a 13th. hour. It has been replaced with 12A.

In her book, F.D.R. My Boss, Grace Tulley, F.D.R.'s secretary, points out that he was afraid of being one of thirteen persons at a table. He would often call her at the last minute to be the fourteenth person.

A piece of trivia, the source of which I can not find, states that when Princess Margaret was born at Glanis Castle in Scotland, her birth was not recorded for three days. It was not until another birth occurred which could be recorded as the thirteenth birth, that her's was written down.

The only negative thing I can think of is that a jury of twelve plus the judge makes thirteen, which is unlucky for some.

If all this talk of the number "13" bothers you, then I'd like to help. Reach into your wallet and take out all your dollar bills and send them to me, these bills are loaded with things thirteen at a time.

Start with the pyramid on the back of the bill and you will find it has thirteen steps. On the other side of the bill is an eagle with thirteen stars over his head. If you count the leaves on the branches in his left claw, you will find thirteen leaves while his right claw holds thirteen arrows.

If you survive Friday the 13th., and it's easier for you, I'll accept your dollars at the next meeting.



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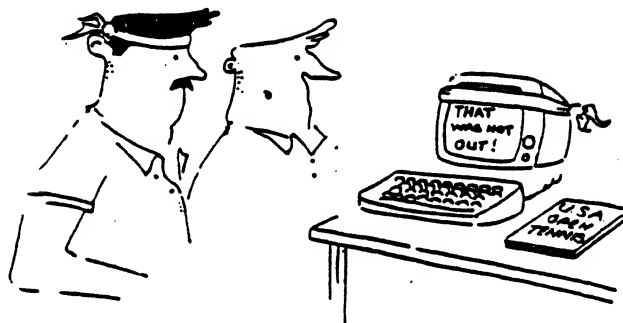
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'... it even questions it's own line decisions.'

The Australian Atari Gazette
(Melbourne)

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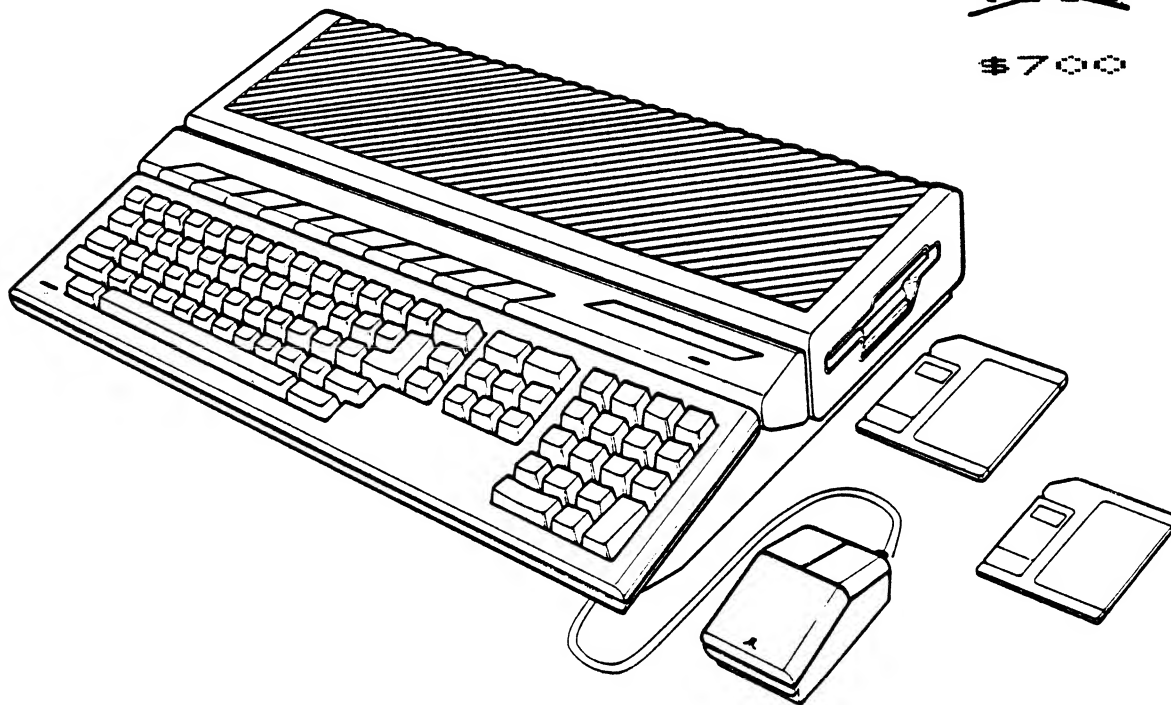
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Which Language?

by Donald Forbes - JACG

The hardest choice of any programmer is: Which language?

For his microcomputer he can choose from any one of a dozen, ranging alphabetically from Assembler at one end to Prolog at the other.

Here is a tabulation of the principal features of ten high-level languages. The ratings are on a scale from 1 to 5 (very poor-1, poor-2, fair-3, good-4, excellent-5) and the following * stands for best-in-category.

	B	C	C	F	F	L	L	M	P	P
	A		O	o	O	I	o	o	a	I
	S		B	r	R	S	g	d	s	L
	I		O	t	T	P	o	u	c	O
	C		L	h	R			l	a	T
					A			a	l	
					N			-		
								2		
Numerical computations	4	4	2	2	5*	2	3	4	4	3
Character handling	5*	5	4	3	2	5	5	4	4	3
Data structures	3	5	5	2	3	4	4	5*	5*	1
Control structures	3	5	3	4	3	3	5	5*	5	2
Console input/output	5*	4	2	3	4	2	4	5	4	5
File input/output	4	4	5*	3	4	2	2	5	4	2
Subroutine interface	2	3	2	3	5	4	4	5*	4	2
Low-level operations	3	5*	2	5	2	2	2	5	3	1
User friendliness	5	3	3	2	3	4	5*	4	4	5

Numerical computation means ability to support applications that do extensive number crunching. FORTRAN, although it is the oldest of these languages, is the clear winner and the overwhelming favorite of engineers and mathematicians. The losers are COBOL, Forth and LISP.

Character handling has a winner in BASIC, with C, LISP and Logo in second place. The loser here is FORTRAN.

Data structures involves the ability to support records, lists and arrays. The winners are Modula-2 and Pascal, with C and COBOL in second place. PILOT, the

loser, only supports simple variables and character strings.

Control structures means support for IF-THEN-ELSE, a CASE statement, counted loops, conditional loops, functions and subroutines, and recursion. The winner is Modula-2, with C and Pascal in second place. PILOT finishes last.

Console input/output refers to ease of reading and writing data to the console. BASIC is the clear winner, with LISP and COBOL the losers.

File input/output covers ease of reading and writing data to disk files. COBOL is the clear winner, followed by Module-2. The losers are LISP, Logo and PILOT.

Subroutine interface covers passing data to and from subroutines and functions. Modula-2 is tops, with FORTRAN in second place. BASIC, COBOL and PILOT stand at the bottom.

Low-level operations refers to the ability to handle bits and bytes, needed to interface with the computer hardware such as writing a driver routine for a serial interface to a modem. C is the winner here (in fact, the UNIX operating system was written in C as were Framework and dBASE III and the PC version of SAS) with Forth and Modula-2 in second place. PILOT is the clear loser.

User friendly refers to ease of understanding as well as writing, compiling and executing a program. Logo, the winner, can be taught to children just past the reading age. C and Forth are powerful tools in the hands of experts but they give no protection against stupid mistakes and thus can be frustrating to beginners.

These evaluations are all from chapter 13 of a book by computer expert Charles F. Taylor who taught computer programming, probability, statistics and inventory theory as a member the faculty of the Naval Postgraduate School. The book (TAB BOOKS, 1984, 360 pages, \$16) is entitled "The Master Handbook of High-Level Microcomputer Languages" and shows you how to create your own address book in any one of the ten languages. ("What better way to find out which language is best for you?")

Which language is best?

If you add up the numbers in each one of the columns you will come up with the following scores:

Modula-2	42**
C	38*
Pascal	37*

BASIC	34½
Logo	34½
FORTRAM	31½
COBOL	28½
LISP	28
Forth	27
PILOT	24

What these numbers mean is that, if you wish to pick only one language for a variety of applications, then you should pick one of the top four: Modula-2, C, Pascal or BASIC.

If you wish to specialize, then you have to make a choice.

For business applications, you would choose COBOL, followed by BASIC, C, Modula-2 and FORTRAN.

For scientific applications, you would pick FORTRAN or one of the general purpose languages.

For computer-aided instruction the ranking would be PILOT followed by Logo and LISP and BASIC.

Character manipulation choices are C, BASIC, Logo, LISP followed by Pascal and Modula-2 but never FORTRAN.

Byte and bit-twiddlers would pick C and Modula-2 and Forth.

For small children, start them on Logo in kindergarten and BASIC in sixth grade.

Artificial intelligence applications begin with either Prolog or LISP.

What does it all mean? You may end up with only one wife or only one husband, but nobody reads only one book. You may end up speaking nothing but English, but if you program then perhaps now may be the time to teach yourself another language.

Text Effects

by Eli Tomlinson - JACS

Making text look good on the screen can greatly enhance a person's impression of your program. I have written a few routines that you might want to try out and add to your own programs. The first routine I have listed will fade a screen in.

```
100 POKE 710,0:POKE 709,0:POKE 752,1
110 ?CHR$(125)
120 POSITION 2,2:"HI THERE."
130 FOR L=0 TO 14 STEP 2
140 POKE 709,L
150 FOR T=1 TO 24:NEXT T
160 NEXT L
170 END
```

The pokes in the program perform the following functions. POKE 710,0 sets the background color to black. POKE 709,0 sets the character color to black. POKE 752,1 eliminates the cursor. (POKE 752,0 would return the cursor.) The ?CHR\$(125) clears the screen. The actual fade is done in lines 130 to 160. The first loop increases the value you will poke to location 709. This will cause the characters to get a little brighter each time. The loop at line 150 is just to slow down the fade.

The second routine displays a text line by expanding the line from the center on the screen.

```
100 DIM A$(40),B$(40)
110 ?CHR$(125):POKE 752,1:A$="This should look really nice."
120 X=20
130 FOR L=1 TO LEN(A$)/2
140 B$=A$(1,L):B$(LEN(B$)+1)=A$(LEN(A$)-L,LEN(A$))
150 POSITION X-L,10:?B$
160 NEXT L
170 END
```

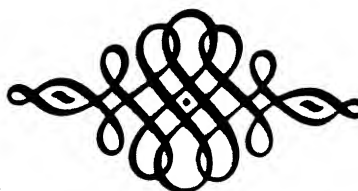
If you would like to experiment with this program, in line 120 the value of X is where the text expands from. I set it to 20 which is the center of the screen. In line 150, the number 10 in the POSITION X-L,10 is how many lines down that text will be displayed.

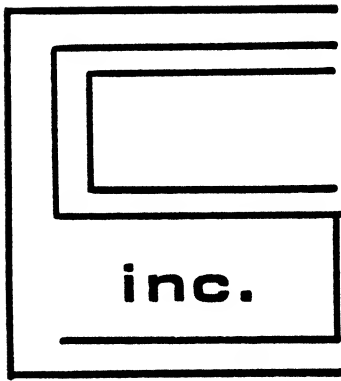
The last routine I have included displays graphics 2 text on the top of the screen.

```
100 DL=PEEK(560)+PEEK(561)*256:POKE DL+3,71:POKE
DL+6,11:?CHR$(125)
110 POKE 708,14:POSITION 5,0:"HI THERE."
```

In line 100 the POKE 708,14 sets the color of the big text.

With these routines and a little experimenting you can add lots of nice little touches to many text oriented programs.



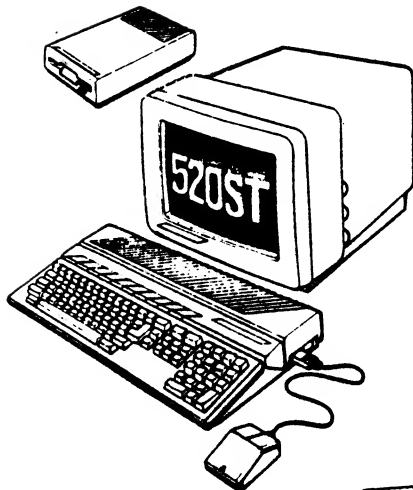
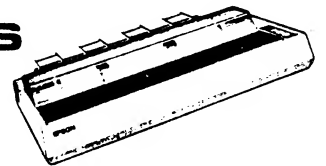


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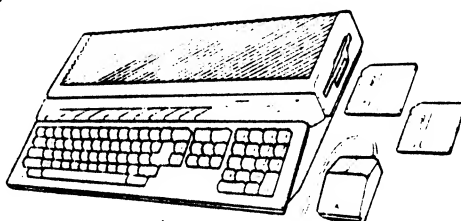
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ST - SIG January Meeting

by Donald Forbes - JACG

You are trying to keep abreast of the technology and are about to buy an Atari ST at a rock-bottom price. But the weather kept you away from the January meeting. Here is the rundown:

Don Ursem, chairman, called the meeting to order at 11 AM after some 35 members trooped from the Bell Labs auditorium to the spacious lobby.

1. An ST with color monitor was available for demos, thanks to a loan from a vendor.

2. Bulletin board: The number is 469-6190.

3. ST Library: Disks are available for \$5 each.

4. CURRENT NOTES LIBRARY: A list of 96 disks was distributed. They can be ordered from Current Notes Library, 122 N. Johnson Rd., Sterling VA 22170 for \$4 each plus postage (\$1 for every 6 disks).

5. GEM: A new version of the GEM interface is now available.

6. IBM Emulation: Software is now available for IBM emulation, although most existing software is for the 5 1/4 inch disk. The emulation is slow, and there is still a problem with graphics. People may hesitate to pay \$300 for partial IBM emulation capability.

7. DEMO: Three volunteers agreed to stage demos for the 520 (using single-sided disks) for the next meeting.

8. MEETING ST: A motion was made and approved that the club be asked to purchase a more capable ST system for meetings, including the now standard double density disk.

9. SERVICING: Dependable Parts in Chatham will provide servicing.

10. NEW DISK: Has word processing, graphics, 3 games and 1 tutorial.

11. BASIC: A new fast, structured BASIC called GFA BASIC was demo'd and is available for \$60. It is comparable to Turbo Basic on the 8-bit machine.

12. SIMULATION: There is a new simulation game called Barbary Coast.

13. KIT: A developer's kit can still be obtained from ►

Atari.

14. THE ATARI ST EXPLORER: An excellent single volume reference to the ST is finally available (John Braga, Kuma) for \$15.

15. UTILITIES: There was a demo of a new library disk containing a randisk with automatic file copying to the randisk at startup. Command TOS was also demo'd.

If you were one of the smart ones who bought Atari stock late last year at 11 1/2 and then saw it double in price because of cheaper hardware and more available software, you may want to attend the ST - SIG meetings to help keep track of your investment.

FEBRUARY'S MEETING IN BRIEF

Reported by Tom Pluck, JACG

The February meeting was held at Bell Labs in Murray Hill, our normal meeting site.

After Bob Mulhearn's Q & A session, Doug Van Hook demonstrated the next JACG library monthly disk, a new Print Shop disk. It has a total of 49 graphics on it, all which were made by German Atarians. They can be converted to Visualizer format for demos.

Next, Mark Knutsen, our BBS Sysop hooked up to the BBS via modem and showed us what the bulletin board is all about. He showed beginners how to log on, and the more experienced users E-mail and messages.

Afterwards, Shree Vandenberg, our Treasurer demo'd how to use a Commodore mouse on the Atari 8-bit machines. It emulates a joystick, so any joystick program can be used with it. For the XE's you need a joystick extension cord, which you can get at Radio Shack for \$3.99. For a finale, she showed us Centipede and boy, the mouse speeds things up! The mouse goes for approximately 40 dollars.

Last but not least, Editor Dave Noyes showed us a type-in database that can be found in Analog magazine #42. It was quick, easy, and free! If you do not need a lot of records, this is for you. It's not SynFile+, but in some ways, it's better. It is also available on JACG library disk 98.

raffle

Three lucky people won 2 disks each from the JACG library, and another won an ST magazine. Ghost Hunter was donated for raffle by Computer Systems Consultants. Th-th-th-th-that's all folks!

Doug Van Hook - JACB

I wasn't sure about the meaning of CAD so I turned to the dictionary for clarification. I'll share what I found with you:

cad (kad), n.[<cadet], a man or boy whose behavior is not gentlemanly; ill-mannered fellow.

With that cleared up, I'll begin to review our disk of the month. 3-D CAD (DISK # 105) - Three Dimensional Computer Aided Design. This program was written by Steven J. Ulstad. It is the best public domain CAD program I've seen. Anyone considering the purchase of Super 3-D Plotter II will find this disk a great introduction to CAD.

When the program is first loaded you will see a welcome screen from SXPAXC3E. Thanks to a library exchange between SXPAXC3E and Librarian Sam Cory this disk, and many more have been added to our library.

The selection menu provides a HELP option, and a CAD3D option. The CAD Menu has eight functions available. This next bit of advice I can never seem to remember... THE EXISTING SCREEN IS CLEARED FROM MEMORY WHEN THE CAD FUNCTION IS SELECTED. In fact I had some really spectacular 3D designs to show at the meeting, but I pressed CAD and erased them (only kidding).

What I'm really trying to say is that some of the menu choices are not obvious. Even after reading the documentation it takes experimentation to get the "feel" of the system.

The hardest part of the program to understand was the use of the cursor, as well as the joystick in the CAD Drawing mode. The cursor is positioned at the Axis you are planning to draw. For the longest time I could only draw two dimensional objects because I kept missing the role of the cursor.

I have had this disk for a month and still don't know everything I would like to about it. For example, I think I can draw each piece of furniture in my living to scale, and merge them together in different places using this program's merge function. One thing is certain... this program provides everything you need to design your new kitchen, see what your house would look like with dormers, or any other design task you may want to try.

As an added bonus, the Flip Side of the disk has a variety of utility programs as well as... Yes, another CAD program. This CAD program is written in BASIC. While it

is easier to use, it does not have all of the features, nor does it have 3D capability. XY PLOT/GRAPH/ENTRY is an X to Y plotting system which generates a nice line graph which can be printed. MENUKMR2 is a menu creator program which I've seen before.

This disk is an example of the High Quality disks which can be found in our library. We try to demonstrate disks which have exceptional value and performance, and I can promise you that we are not running out of these very special Public Domain Goods.

The Temple of Apshai Trilogy

by Tom Pluck - JACB

Ever since The Temple of Apshai by Automated Simulations came out, there has been a flood of fantasy adventure games that let you adventure with the joystick. Now, Epyx has revamped the original, and added two more: The Upper Reaches of Apshai and the Curse of Ra. Together, they are a nice package....

The graphics on these games are very nice, so that you can tell the difference between an giant leech and a dust wraith if one happens to attack you. the animation of your character is much better than that of the monsters, and you can tell the difference between the three different sword attacks: parry, attack, and thrust. You can also use a bow.

Out of each of the three games-on-a-disk, there are four levels of dungeon each and three difficulty levels, that is, you have 36 different varieties of play. Whew! There are also many traps and secret doors to find.

One of the Upper Reaches of Apshai levels is so easy, it's almost a joke! Have you ever construed a field mouse as a monster? Well, you will get laughs from the prompts "Oh No! Killer Tomato!" and other silly monsters. The major flaw of the game is playability. If you are used to a game keeping your interest for years, forget it. This wears out in about 10 months, leaving you in the dust.

Believe me, work was put into this, but if you do not like fantasy games, look twice before you buy.

Next month: Star Raiders II, by Atari

-Doctor Dead

P.S., for my reputation: Last month someone accused me of pirating things on BBS's. Here's the truth: I don't own a modem, and I don't own a single piece of pirated software.

FROM THE EXCHANGE

R.P. Mulhearn - JACS

THIS MONTH BRINGS A MIXED ASSORTMENT FROM AROUND THE WORLD.COMDEX WAS A SUBJECT COVERED BY MANY NEWSLETTERS.

NYBBLES&BYTES 12/86 DOS75 COMPARED,DOUBLE COLUMN PRINTING WITH ST WRITER

MID MICHIGAN ATARI MAGAZINE 1/87 MULTITUDE OF REVIEWS ST AND 8 BIT

ACE-ST LOUIS 1/87 ADD COMPOSIT VIDEO TO YOUR 520ST,EASY DATA 1200 MODEM REVIEW

MACC 1/87 850 INTERFACE PORT TESTER ,TRAK DRIVE REPAIR

FEEDBACK 11-12/86 3D GRAPHICSPROGRAMN,RT JUSTIFICATION SPEEDSCRIPT 3.0,ST SCREEN DUMP EPSON LQ800

TRI COUNTY ATARI USERS CLUB 1/87 TYPESETTER HINTS,1ST XLENT WORD PROCESSOR REVIEW,RANDISK SAVER

PUGET SOUND ATARI NEWS 1/87 SPARTA DOS HELP FILE,ICD MIO REVIEW,BASIC COMPLIER ST REVIEW

ACE OF EUGENE 1/87SHOPPERS GUIDE TO SOFTWARE AND HARDWARE

MACE JOURNAL 1/87A HARD LOOK AT THE DUPLICATOR

PAGE 6 ETHERNET FOR THE ST(SOFTWARE)

SBACE 1/87 ST BBS GETTING STARTED

REACH 11-12/86 ST MONITOR ADJUSTMENT,VIDEO INTERFACE ST RGB TO RF

SCAT 1/87 ST RANDOM DISK ACCESS PROGRAMN

ABACUS 2/87 GAME MINTS,WORD PROCESSORS COMPARED

JACKSONVILLE ACE 2/87 PREVENT ESD DAMAGE TO YOUR COMPUTER

OL'HACKERS 2/87 ATARI AS A SLIDE MAKER

MACE 2/87 ELIZA AI P.D. PROGRAMN

ADELAIDE ACE 1/87 PRINTER PROGRAMN PORTS 1&2 OR 3&4,APPENDING BINARY FILES,RESET REDIRECT

PHOENIX 2/87 REVIEW SH204 HARD DISK

AUSTRALIAN GAZETTE 12/86 LOGO CORTESIAN COORDINATES,SUPERDOS,MUSICAL CALENDER

BAAUG 12/86 1040ST WHINE FIX

PORTLAND ACE 1/87 VARIOUS PASCAL

ACORN KERNEL 1/87 MX80 AW+ PRINTER DRIVER,REVIEW 1ST CADD(ST)

WAND 1/87 XM301 DANGER!,ICON SHOP PD PRINT SHOP DISK

ABE'S ACES 2/87 EXPO ATARI ALLENTOWN PA! ,4 MEG UPGRADE 520 ST

MVACE 2/87 ST DISK DIRECTORY

Zmagazine February 23, 1987
Issue 40

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<X> ATARI CORP. POSTS EARNINGS--
1986 A PROFITABLE YEAR

<X> EXPRESS! STATUS REPORT--
NEW VERSIONS FORTHCOMING

<X> LEDBETTER RESIGNS AS
SIG*ATARI SYSOP

<X> CHICAGO ZMAG EXCERPTS--
WHAT'S NEW IN THE ATARI MAGS

<X> GAMES COMPUTERS PLAY NOW
PLAYING WITH THE ST'S

<X> FIRM ACCUSED OF PIRATING
SHAREWARE PROGRAMS

<X> ADDING A HARD DRIVE TO YOUR
ATARI 8-BIT--STEP BY STEP

All this and more in this weeks
edition of Zmagazine.....



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SUNNYVALE, Calif.--(BW)--Atari Corp. reported Friday record results of operations for the year ending Dec. 31, 1986.

Sales for the fourth quarter were \$92,667,000 vs. \$65,350,000 for the prior year, an increase of 41.8 percent. Income before extraordinary credit for the fourth quarter was \$11,950,000. Net income was \$22,997,000, or 87 cents per share, vs. \$14,899,000, or 64 cents per share for 1985.

Sales for the year ending Dec. 31, 1986, were \$258,131,000 vs. \$141,987,000 for 1985, an increase of 81.8 percent. Income before extraordinary credit for 1986 was \$25,050,000 vs. a loss of \$14,314,000 for 1985.

Net income for 1986 was \$44,516,000. Net income per share was \$1.89 in 1986 vs. a loss of 62 cents in 1985.

"Our strong performance in 1986 is the result of growing consumer awareness of the value of the ST personal computers and a resurgence in demand for video game systems," said Sam Tramiel, president.

The ST is steadily gaining market share in the United States and is already one of the largest selling personal computers in Europe. Sales of video game systems continued to be strong, with the company enjoying one of its best Christmas seasons for video game sales in recent years.

Tramiel said the introduction of advanced computer and video game products will drive the company's growth in 1987. Atari announced important new products in January, including an IBM PC clone that will sell for less than \$500; more powerful multi-megabyte versions of its ST computer line and a laser printer for desktop publishing; and the powerful XE video game system.

"We're operating from a position of strength now," Tramiel said. "We are virtually debt free and have a solid

equity base on which to build the company's future."

Atari Corp. is one of the largest manufacturers and marketers of personal computers and video game systems in the world. Atari Corp. is located at 1196 Borregas Ave., Sunnyvale, Calif. 94086. Telephone: 408/745-2000.

CONTACT: Atari Corp., Sunnyvale
Greg Pratt, 408/745-2349
or
Amidei and Co., San Francisco
Gary Frank or Hunter Gooch,
415/788-1333

Xx ZMAG NEWSFILE--8-BIT NEWS
....Express! Status Report

[The Terminal Programs]

1030 Express-Currently at Version 2.1
850 Express-Currently at Version 3.0
MPP Express-Currently at Version 1.0
The scheduled release of 3.0 for the 1030 and MPP has been delayed. Probably won't be released till summer at the earliest.

[The BBS Programs]

1030 Express-Currently at Version 2.0
850 Express-Currently at Version 1.0
ST Express-Currently in Beta Test

The ST version of BBS Express! is currently running in beta test. Call the Midnight Express BBS at (804) 379-4156 and at elf Express (219) 233-5777 to check it out for yourself.

We are currently recording all suggestions for additional features for the 1030 and 850 versions of BBS Express!. We are also looking into ways to incorporate some of these suggestions. At this time and until a solution to the memory limitation can be worked out, we do not have any scheduled release dates for upgrades to the 1030 and 850 versions.

As the status of the Express! series of programs change, we will update the status here, so you can get the inside scoop here instead of the 'Rumor Mill':

If you currently own the 1030/XM301 version of BBS Express! and would like to upgrade to the 850-compatible version, send your original disk (again?!?), \$14.95, plus \$2 to cover shipping and handling (total \$16.95) to us. Please include a note saying that you are upgrading to the 850 version of the BBS.

The 850-compatible version of BBS Express! is now shipping! To run the 850 version, you must have an 850 interface (or compatible [P:R:1]) and your modem MUST be able to hang up with the DTR lead.

Watch for more Express updates and status reports as they become available.

Xx..Ledbetter Leaves SIG*ATARI.....

xxxxxxxxxxxxxxxxxxxx
From: Keith Ledbetter
To: SIG*ATARI Members
xxxxxxxxxxxxxxxxxxxx

Effective Saturday, 2/14/87, I am resigning as a SYSOP on SIG*Atari. I have accepted a new job that requires relocation, and I feel that the requirements of the job will no longer leave me the time needed to hold a SYSOP title here.

I plan on staying active on Compu-Serve as time permits, and can be reached under my non-SYSOP ID of 72457,3442.

I would like to thank everyone on Compu-Serve for the enjoyment that I have gotten out of this job. And, a big thanks to the other SYSOPs of SIG*Atari. I have greatly enjoyed my time here, and look forward to continuing to be a part of the fine SIG*Atari network.

Remember, receiving the JACG Newsletter
is just one of the many benefits of being a
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There are two easy ways to renew:

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